

Date : 13-05-2026

Pattern : 2024

Duration : 150 min

Max Marks : 50

Instructions for students :

- Marks are indicated for each question.
 - Handwriting should be eligible for evaluation.
 - Marks will be given for quality, not quantity.
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Q.1] Answer the following (any Five) : (10 Marks)

- What is EHR?
- What is Biomedical image analysis?
- What is Descriptive Statistics for Healthcare Data?
- What are Syndromic Surveillance Systems?
- What is HCI?
- What is Healthcare Fraud?
- What is Data Privacy in Healthcare?

Q.2] Attempt the following (any Two) : (10 Marks)

- Summarize the role of Big Data in Healthcare.
- Summarize the Statistical Modeling for Healthcare Analytics.
- Contrast Provider Fraud and Patient Fraud

Q.3] Attempt the following (any One) : (10 Marks)

- Explain the concept of Healthcare Analytics. How does it improve decision-making in healthcare organizations?
- Demonstrate how descriptive analytics can be used to analyze hospital patient admission trends.

Q.4] Attempt the following (any One) : (10 Marks)

- A dataset shows varying recovery rates across hospitals. Apply descriptive statistics to compare performance across hospitals.
- A hospital wants to improve its online reputation. Analyze social media data and recommend data-driven strategies.

Q.5] Attempt the following (any One) : (10 Marks)

- You are given patient admission data across seasons. Design and justify appropriate visualizations to identify trends and patterns.
- A hospital shows abnormally high billing for expensive procedures compared to industry averages. Suggest a Business Analytics plan for the following:
 - What type of fraud might this indicate?
 - What analytical steps would you take to confirm it?